DeMont & Breyer Docket: 9771-015US Blumbach · Zinngrebe Docket: 04PH 0166USP K/nmo

REMARKS

Please enter i) the amendments to the Claims and ii) the Substitute Specification submitted herewith.

Claims 1-18 were presented for examination and were rejected.

Claim 6 has been amended to address the claims objection. Claims 1, 3, 5, 7, 8, 12, and 16 have been amended to make the terminology more consistent while ensuring proper antecedent basis.

Claim 14 has been amended merely to more accurately define the relationship of the recited components.

The Substitute Specification introduces section headings to and removes references to the claims from the Specification. As such, no new matter has been added to the Substitute Specification.

The applicants respectfully request reconsideration in light of the amendments and the following comments.

Claims Objection

Claim 6 was objected to. The applicants have amended claim 6, per the Examiner's suggestion.

35 U.S.C. § 102 Rejection of Claim 1

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Nagai, U.S. Patent 6,057,609 (hereinafter "Nagai"). The applicants respectfully traverse the rejection.

Claim 1 recites:

1. A device for supplying uninterruptible power, said device comprising:

input connections (90, 91) for connection to a primary DC voltage supply device (230);

connections (190, 191) for connecting a standby power source (60);

first output connections (100, 101) for connecting a load (220);

a device (20) for decoupling the input connections (90, 91) from the first output connections (100, 101) in the event of a fault in the primary DC voltage supply device (230);

a first controllable switching device (40) for connecting the standby power source (60) to the first output connections (100, 101) in a controlled manner in the event of a fault in the primary DC voltage supply device; and

a control device (31) which is assigned to the first controllable switching device (40);

characterized in that

the first controllable switching device (40) has a first power transistor (41, 42),

<u>a monitoring device (30) is provided for monitoring the output current flowing through the first power transistor</u> (41, 42), and

the control device (31) is designed to pulse-width-modulate the first power transistor (41, 42) on the basis of the current being monitored in order to limit the current which can be provided by the standby power source (60).

(emphasis supplied)

Nowhere does Nagai teach or suggest, alone or in combination with the other references, what claim 1 recites — namely that a <u>monitoring device is provided for monitoring the output current flowing through the power transistor</u> of the first controllable switching device.

At the top of page 4 of the Office action, the Office alleges that Nagai discloses "a monitoring device (50a; col. 6, lines 16-25) is provided for the purpose of monitoring the output current flowing through the power transistor." However, the referenced passage instead identifies device 50a as a "load judging circuit." And nowhere does Nagai teach that device 50a, or any other device for that matter, <u>monitors current through the recited power transistor</u>.

For this reason, the applicants respectfully submit that the rejection of claim 1 is traversed.

35 U.S.C. § 102 Rejection of Claim 1, 6-7, and 12-13

Claims 1, 6-7, and 12-13 were rejected under 35 U.S.C. § 102(b) as being anticipated by Eng, U.S. Patent 4,745,299 (hereinafter "Eng"). The applicants respectfully traverse the rejection.

Claim 1 recites:

1. A device for supplying uninterruptible power, said device comprising:

input connections (90, 91) for connection to a primary DC voltage supply device (230);

connections (190, 191) for connecting a standby power source (60); first output connections (100, 101) for connecting a load (220);

a device (20) for decoupling the input connections (90, 91) from the first output connections (100, 101) in the event of a fault in the primary DC voltage supply device (230);

a first controllable switching device (40) for connecting the standby power source (60) to the first output connections (100, 101) in a controlled manner in the event of a fault in the primary DC voltage supply device; and

a control device (31) which is assigned to the first controllable switching device (40);

characterized in that

the first controllable switching device (40) has a first power transistor (41, 42),

<u>a monitoring device (30) is provided for monitoring the output current flowing through the first power transistor</u> (41, 42), and

the control device (31) is designed to pulse-width-modulate the first power transistor (41, 42) on the basis of the current being monitored in order to limit the current which can be provided by the standby power source (60).

(emphasis supplied)

Nowhere does Eng teach or suggest, alone or in combination with the other references, what claim 1 recites — namely that a monitoring device is provided for monitoring the output current flowing through the power transistor of the first controllable switching device.

Toward the bottom of page 4 of the Office action, the Office alleges that Eng discloses that PWM control 430 is a monitoring device that is provided for the purpose of monitoring the output current flowing through the power transistor. However, this is incorrect, in that what Eng actually teaches (in col. 4, lines 52-54) is that "current

Blumbach · Zinngrebe Docket: 04PH 0166USP K/nmo

transformer 456 is utilized to sense the peak discharge current flowing from the battery 451 to the transistor switch 453." While this *might* result in current-limiting, this configuration disclosed in Eng is <u>not</u> the same as that recited in claim 1 of the instant application, in that claim 1 recites monitoring the <u>output</u> current flowing through the transistor.

For this reason, the applicants respectfully submit that the rejection of claim 1 is traversed.

Because claims 6 and 7 depend on claim 1, the applicants respectfully submit that the rejection of claim 6 and 7 is also traversed.

Claim 12 recites:

12. A device for supplying uninterruptible power, said device comprising:

input connections (90, 91) for connection to a primary DC voltage supply device (230);

connections (190, 191) for connecting a standby power source (60); output connections (100, 101) for connecting a load (220);

a device (20) for decoupling the input connections (90, 91) from the output connections (100, 101) in the event of a fault in the primary DC voltage supply device (230);

a first controllable switching device (40) for connecting the standby power source (60) to the output connections (100, 101) in a controlled manner in the event of a fault in the primary DC voltage supply device (230); and

a control device (31) which is assigned to a second controllable switching device (22);

characterized in that

a parallel circuit comprising a diode (21) and the second controllable switching device (22) forms the device (20) for decoupling, a monitoring device (30) is provided for monitoring an input voltage, and the control device (31) disconnects the second controllable switching device (22) when the input voltage being monitored signals a fault in the primary DC voltage supply device (230).

(emphasis supplied)

Nowhere does Eng teach or suggest, alone or in combination with the other references, what claim 12 recites — namely a <u>parallel</u> circuit comprising a diode (21) and the second controllable switching device.

On page 5 of the Office action, and referring to limitations that are recited in claim 6 that are similar to those in claim 12, the Office alleges the "diode of the [Eng] device for

decoupling is connected to the + output node of the line rectifier (404) and is in parallel with the transistor (403)." However, it is <u>incorrect</u> to say that the diode and transistor of Eng are in parallel with each other, because in a parallel circuit the voltage is the <u>same</u> across the components that are in parallel with each other. This would be the case in the instant application (page 7, lines 19-27 of the filed specification in English) where, for example, the diode is connected to the source and drain connections of a field-effect transistor (or the equivalent connections of another type of transistor). Clearly, this is <u>not</u> the case in Eng.

For this reason, the applicants respectfully submit that the rejection of claim 12 is traversed.

Because claim 13 depends on claim 12, the applicants respectfully submit that the rejection of claim 13 is also traversed.

35 U.S.C. § 103 Rejection of Claims 2-5

Claims 2-5 were rejected under 35 U.S.C. § 103 as being unpatentable over Nagai. The applicants respectfully traverse the rejection.

Because claims 2-5 depend on claim 1, the applicants respectfully submit that the rejection of claims 2-5 is also traversed for the reasons provided above and with respect to the Nagai rejection of claim 1.

35 U.S.C. § 103 Rejection of Claims 8-11 and 14-18

Claims 8-11 and 14-18 were rejected under 35 U.S.C. § 103 as being unpatentable over Eng in view of Stich, U.S. Patent 5,315,533 (hereinafter "Stitch") and further in view of Charych, U.S. Patent 4,564,767 (hereinafter "Charych"). The applicants respectfully traverse the rejection.

Because claims 8-11 depend on claim 1 and because Stitch and Charych fail to cure the deficiencies of Eng with respect to the rejection of claim 1, the applicants respectfully submit that the rejection of claims 8-11 is also traversed.

Claim 14 recites:

14. A device for supplying uninterruptible power, said device comprising:

input connections (90, 91) for connection to a primary DC voltage supply device (230);

connections (190, 191) for connecting a standby power source (60); first output connections (100, 101) for connecting a load (220);

a device (20) for decoupling the input connections (90, 91) from the output connections (100, 101) in the event of a fault in the primary DC voltage supply device (230);

a first controllable switching device (40) for connecting the standby power source (60) to the output connections (100, 101) in a controlled manner in the event of a fault in the primary DC voltage supply device (230);

a control device (31) which is assigned to the first controllable switching device (40); and

a supply output which is connected in parallel with the first output connections (100, 101) and whose current is limited by a current limiter (110) resulting in a current-limited supply output (130).

(emphasis supplied)

Nowhere does Eng, Stich, or Charych teach or suggest, alone or in combination with one another, what claim 14 recites — namely <u>a supply output</u> which is connected in parallel with the first output connections (100, 101) and <u>whose current is limited by a current limiter (110).</u>

On page 7 of the Office action, the Office alleges that Charych discloses circuit "wherein the output comprises a regulator (fig 1, item 66, col. 4, lines 35-38)." However, this is <u>not</u> the same thing as a current limiter. Although some systems in the art that provide a regulation function also provide a current-limiting function, this is <u>not</u> taught or suggested by Charych.

For this reason, the applicants respectfully submit that the rejection of claim 14 is traversed.

Because claims 15-18 depend on claim 14, the applicants respectfully submit that the rejection of claims 15-18 is also traversed.

Request for Reconsideration Pursuant to 37 C.F.R. 1.111

Having responded to each and every ground for objection and rejection in the last Office action, applicants respectfully request reconsideration of the instant application

Blumbach · Zinngrebe Docket: 04PH 0166USP K/nmo

pursuant to 37 CFR 1.111 and request that the Examiner allow all of the pending claims and pass the application to issue.

If there are remaining issues, the applicants respectfully request that Examiner telephone the applicants' agent so that those issues can be resolved as quickly as possible.

Respectfully, Hartmut Henkel et al.

By /Kenneth Ottesen/

Kenneth Ottesen Reg. No. 54353 732-578-0103 x222

DeMont & Breyer, L.L.C. Suite 250 100 Commons Way Holmdel, NJ 07733 United States of America